

## REMARKS

Claims 1-60 remain pending in the present application. Claims 1, 7, 15, 17, 21, 24, 27, 29, 37, 45, 47, 49, 51, and 52 have been amended to clarify claimed subject matter and/or correct informalities. Support for the amendments can be found in the original Specification at least at page 6, lines 15-16; page 7, lines 10-19; page 12, lines 21-25; page 13, lines 11-14; and Figures 1- 4. No new matter has been introduced by these amendments.

Applicant has amended the Abstract to reflect the claim amendments as shown on page 2. Again, no new matter has been introduced.

Claims 1-60 are for consideration upon entry of the present Amendment. Applicant requests favorable consideration of this response and allowance of the subject application based on the following remarks.

### *Statement of Substance of Interview*

Applicant appreciates the Examiner's participation in a telephonic conference of August 8, 2006.

During the interview, the claimed subject matter of the application and the Ouyang and Chen references were discussed. Specifically, Applicant presented arguments as to how the cited documents, alone or in combination, lacked at least features of the claimed subject matter, such as keypad of numeric keys having associated letters shown in Figures 1 and 2, language system to facilitate input of input string and selection of language character without switching modes between input and selection, and a direct key-based search engine, as recited in the claims.

Also discussed during the interview were proposed amendments to the claims. In the interest of expediting prosecution of the application, and without conceding the propriety of the rejection, Applicant proposed to amend each of the independent claims to further clarify features of Applicant's claimed subject matter. Thus, Applicant is submitting the amendments in writing in this response to the Office Action.

**Claims 25, 33, and 38 Need Reasons for Rejection**

The Office did not present evidence or arguments to support rejection of Claims 25, 33, and 38. Applicant requests the Office to provide guidance for these claims or, otherwise, indicate that these claims are allowable.

**35 U.S.C. § 103 Rejections**

A. Claims 1, 5, 6, 9, 10, 15-17, 19-21, 23, 26, 29, 32, 36, 41, 42, 45-52, 55, 56, 59, and 60 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,674,372 to Ouyang (hereinafter, "Ouyang") in view of U.S. Patent No. 6,009,444 to Chen (hereinafter, "Chen1") further in view of U.S. Patent No. 6,005,495 to Connolly et al (hereinafter "Connolly"), U.S. Patent No. 6,246,976 to Mukaigawa (hereinafter "Mukaigawa");

B. Claims 2, 7, 18, 22, 24, 30, and 57 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,674,372 to Ouyang in view of U.S. Patent No. 6,009,444 to Chen (hereinafter, "Chen1"), U.S. Patent No. 6,005,495 to Connolly et al, U.S. Patent No. 6,246,976 to Mukaigawa further in view of U.S. Patent No. 6,073,146 to Chen (hereinafter, "Chen2");

C. Claims 3, 4, 31, 32, 37, 39, 40, 53, and 54 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,674,372 to Ouyang in view of U.S. Patent No. 6,009,444 to Chen1, U.S. Patent No. 6,005,495 to Connolly, U.S. Patent No. 6,246,976 to Mukaigawa, further in view of U.S. Patent No. 6,489,950 Griffin et al. (hereinafter "Griffin");

D. Claims 8, 28, and 58 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,674,372 to Ouyang in view of U.S. Patent No. 6,009,444 to Chen1, U.S. Patent No. 6,005,495 to Connolly, U.S. Patent No. 6,246,976 to Mukaigawa further in view of U.S. Patent No. 6,292,772 Kantrowitz et al. (hereinafter "Kantrowitz"); and

E. Claims 14 and 27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,674,372 to Ouyang in view of U.S. Patent No. 6,009,444 to Chen1, U.S. Patent No. 6,005,495 to Connolly, U.S. Patent No. 6,246,976 to Mukaigawa further in view of U.S. Patent No. 5,838,972 to Matsuzuka (hereinafter "Matsuzuka"). Applicant respectfully traverses the rejections.

Applicant submits that the claims as currently amended, are allowable over the foregoing combinations of references. Rejections A-E rely on 35 U.S.C. §103(a). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations (see, MPEP §2142).

Applicant submits that that all of the criteria set forth for making a prima facie case have not been met by the Office. All of the §103(a) rejections rely on Ouyang and Chen1. More specifically, Applicant submits that the evidence relied upon by the Office does not support the rejections made under 35 U.S.C. §103(a). As described in more detail below, Applicant submits that Ouyang and Chen1 do not disclose, teach, or suggest the features “*an input string representative of one or more Chinese phonetic characters, wherein the keypad comprises number keys, the number keys having associated letters of an alphabet*”, as recited in the independent Claims 1, 17, 21, 24, 27, 29, 37, 45, 47, 49, 51, and 52. Other evidence and arguments are also presented to overcome the rejections.

**Independent Claims 1, 17, 21, 29, 37, 45, 47, 49, and 51** have been amended to further clarify features of Applicant’s subject matter. These claims now recite, in part:

*“an input string representative of one or more Chinese phonetic characters, wherein the keypad comprises number keys, the number keys having associated letters of an alphabet;  
seamlessly support at least the following modes: presentation of the likely Chinese language characters; selection of the likely Chinese language characters; and/or further input of one or more Chinese phonetic characters on the keypad.”*

**Independent Claims 24 and 27** have been amended to further clarify features of Applicant’s subject matter. Claims 24 and 27 now recite, in part:

*“an input string representative of one or more Chinese phonetic characters, wherein the keypad comprises number keys, the number keys having associated letters of an alphabet;  
seamlessly support at least the following modes: presentation of the likely Chinese language characters; selection of the likely Chinese language characters; and/or refusal of the likely Chinese language characters.”*

**Independent Claim 52** has been amended to further clarify features of Applicant's subject matter. Claim 52 now recites, in part:

*“an input string representative of one or more Chinese phonetic characters, wherein the keypad comprises number keys, the number keys having associated letters of an alphabet;  
a language model to derive likely Chinese language characters based on the input string”.*

***Keypad Comprises Number Keys having associated Letters of an Alphabet***

As already stated above, Applicant submits that Ouyang and Chen1 do not disclose, teach, or suggest the features *“an input string representative of one or more Chinese phonetic characters, wherein the keypad comprises number keys, the number keys having associated letters of an alphabet”*, as recited in all the independent Claims 1, 17, 21, 24, 27, 29, 37, 45, 47, 49, 51, and 52.

The evidence shows Ouyang and Chen1 includes a keypad with Chinese symbols assigned with numeric keys (Ouyang, Figure 2 and Chen1, Figure 1). This evidence is insufficient to support a *prima facie* case of obviousness of the claimed *“keypad comprises number keys, the number keys having associated letters of an alphabet”*. As Ouyang or Chen1 do not disclose, teach or suggest all the claim features, alone or in combination with the other cited references, Applicant submits that the claims are allowable over the pending obviousness rejections.

Next, the Office states that the combination of Ouyang and Chen1 fails to teach the number key having associated letters but that Connelly provides this teaching (Office Action, page 3). Applicant asserts Connelly fails to compensate for the deficiencies of Ouyang and Chen1, as Connelly does not provide evidence sufficient to disclose, teach, or suggest *“a*

*keypad to receive an input string representative of one or more Chinese phonetic characters, wherein the keypad comprises number keys, the number keys having associated letters of an alphabet*". Rather Connelly describes entering words, sentences or arbitrary text (col. 2, lines 54-61) based on word derivations of the English language (col. 9, lines 49-53), not of Chinese phonetic characters. This evidence is insufficient to support a prima facie obvious rejection of the independent Claims 1, 17, 21, 24, 27, 29, 37, 45, 47, 49, 51, and 52.

Applicant further asserts that the Office has failed to provide evidence sufficient to establish motivation for one of ordinary skill in the art to modify the keypad of Ouyang with these references. There is insufficient evidence in the Ouyang or Chen1 reference to combine their respective teachings and arrive at the subject matter of these claims. The motivation provided by the Office to "provide user an improved method for entering characters on numeric keypad" is very general because it could cover almost any alteration contemplated of Ouyang (Office Action, page 3).

Additionally, there is nothing in any of the references that would suggest using letters of an alphabet to represent Chinese phonetic characters. Finally, while Connelly describes an alphabet, there is no suggestion or motivation, other than Applicant's disclosure, to employ the alphabet to represent Chinese phonetic characters. The Office cannot improperly rely on hindsight without evidence of motivation to propose the suggested combination. Thus, this rejection is improper.

***Seamlessly Support Modes: Presentation, Selection, and/or Further Input***

With respect to seamlessly supporting modes, the Office has failed to present references which disclose, teach, or suggest the recited features in the claims. For example,

Chen1, Connelly or Mukaigawa do not compensate for the deficiencies of Ouyang, as none of the references discloses, teaches, or suggests “*seamlessly support at least the following modes: presentation of the likely Chinese language characters; selection of the likely Chinese language characters; and/or further input of one or more Chinese phonetic characters on the keypad*”, as recited in Claims 1, 17, 21, 29, 37, 45, 47, 49, and 51.

Turning to the references, Chen1 describes how the user enters the Chinese phonetic symbol as input, user presses a key for completion of character entry, and then the user may select a language character (col. 3, lines 50-51, col. 4, lines 3-9), which is not a seamless mode process. Furthermore, Mukaigawa simply describes a language system to identify languages (Japanese, Korean, or Chinese) by reducing data input for each character (col. 8, lines 28-34 and lines 54-56 ). More importantly, Mukaigawa teaches away from the claimed subject matter by using a switching device to enter the identified language into a translation engine (col. 13, lines 6-14), which is not a seamless mode process. As Ouyang or Chen1 do not disclose, teach or suggest all the claim features, alone or in combination with Connelly or Mukaigawa, Applicant submits that the claims are patentable over the pending obviousness rejections.

Applicant further asserts that the Office has failed to provide evidence sufficient to establish motivation for one of ordinary skill in the art to modify these references or to combine their respective teachings and arrive at the subject matter of Claims 1, 17, 21, 29, 37, 45, 47, 49, and 51. The motivation provided by the Office to “facilitate the user input” is not very specific because it could cover almost any alteration contemplated of Ouyang (Office Action, page 3).

Furthermore, per the standard for §103, Applicant fails to find evidence of record sufficient to suggest employing 'seamless modes to facilitate the user input'. Finally, while Mukaigawa describes a language system, there is no suggestion or motivation, other than Applicant's disclosure, to employ the language system to facilitate a seamless modes process. Rather, the language system in Mukaigawa teaches away from the claimed subject matter by using a switching device (col. 8, lines 28-34). The Office has improperly relied on hindsight without evidence of motivation to propose the suggested combination. This rejection is improper.

Since these features are not disclosed, taught, or suggested in Ouyang, Chen1, Connelly, or Mukaigawa alone, the resultant combination of these references does not result in Applicant's claims. Accordingly, this claim is allowable over these references, individually or in combination for at least these reasons. Applicant respectfully requests that the §103 rejection be withdrawn.

#### ***Direct Key-Based Search Engine***

In addition, Ouyang or Chen1 do not teach or suggest the claimed "direct key-based search engine". The Office fails to cite any portion of Ouyang or Chen1, which teach this feature. Chen1 describes how the user enters the Chinese phonetic symbol as input, user presses a key for completion of character entry, and then the user may select a language character (col. 3, lines 50-51, col. 4, lines 3-9), which is not a direct key-based search engine. For this reason alone, the Office has failed to present a *prima facie* case of obviousness with respect to Claims 17 and 45. Accordingly, Applicant requests that the §103 rejections be withdrawn.



### ***Converting***

The Office argues that it would have been obvious to one of ordinary skill to provide the teaching of Chen2 into the system of Ouyang and Chen1 to speed up the language conversion process. Applicant respectfully disagrees. A person of ordinary skill in the art would not have combined these references, as there is no motivation to combine Ouyang and Chen1 with Chen2, which are entirely different systems. Ouyang and Chen1 are directed to devices with a numeric keypad with the challenges of entering Chinese characters with a limited number of keys (Ouyang, Figure 2 and Chen1, Figure 1). In contrast, Chen2 describes a personal computer with a full-size QWERTY keyboard and monitor (Chen2, Figure 2A). Input of Chinese characters using a limited keypad (such as those found on cellphones and PDAs) poses entirely different issues, with unique considerations, in comparison to input of Chinese characters using a full-size QWERTY keyboard. A person of ordinary skill in the art faced with inputting Chinese characters using a numeric keypad would not have been compelled or motivated to consider Chen2's computer system with full-size keyboard. Thus, the cited combination of these references fails to teach or suggest all of the features of Claims 9, 29, and 49.

### ***Remote Server***

Finally, Applicant asserts Ouyang and Chen1 fail to disclose, teach, or suggest "server remote", as recited in Claims 14, 27, and 51.

The Office fails to particularly point out where any of these features are taught or suggested by the cited combination. However, some of the features of Claims 14, 27, and 51 are not the same as the features of Claim 1. The Office has failed to present any line of

reasoning as to why the cited combination teaches these different features. As a result, the Office has failed to present a *prima facie* case of obviousness with respect to Claims 14, 27, and 51. For this reason alone, the 35 USC §103(a) rejection of these claims is improper and should be withdrawn.

**Dependent claims 2-16** depend from claim 1 and are allowable by virtue of this dependency. These claims are also allowable for their own recited features that, in combination with those recited in claim 1, are not disclosed by Ouyang or Chen1.

**Dependent claims 18-20** depend from claim 17 and thus are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in claim 17, are not disclosed by Ouyang or Chen1.

**Dependent claims 22 and 23** depend from claim 21 and **dependent claims 25 and 26** depend from claim 24, and are allowable by virtue of this dependency. These claims are also allowable for their own recited features that, in combination with those recited in claims 21 and 24, are not disclosed by Ouyang or Chen1.

**Dependent claim 28** depends from claim 27 and is allowable by virtue of this dependency. This claim is also allowable for its own recited features that, in combination with those recited in claim 21, are not disclosed by Ouyang or Chen1.

**Dependent claims 32 and 36** depend from claim 29 and **dependent claims 41 and 42** depend from claim 37, and are allowable by virtue of this dependency. These claims are also allowable for its own recited features that, in combination with those recited in claims 29 and 37.

**Dependent claim 46, 48, 50** depend from claims 45, 47, and 49, respectively and are allowable by virtue of this dependency.

**Dependent claims 55-56 and 59-60** depend from claim 52 and are allowable by virtue of this dependency.

Applicant respectfully submits that the cited art does not render the claimed subject matter obvious and that therefore the claimed subject matter does patentably distinguish over the cited art. Further, various evidence of record supports non-obviousness of the subject matter of claims 1-60. For these reasons, the 35 USC §103(a) rejection of these claims is improper and should be withdrawn.

**Conclusion**

Claims 1-60 are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of the subject application. If any issue remains unresolved that would prevent allowance of this case, the Examiner is requested to contact the undersigned attorney to resolve the issue.

Respectfully Submitted,

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